

Table C.7-6. Waste processing alternative outputs.

Alternative/Waste Form	Composition	Quantity	No. of Containers	Disposition	Source
<u>Continued Current Operation Alternative</u>					
Transuranic Waste (remote-handled Waste Isolation Pilot Plant containers)	Dry solids	110 m ³	280	Waste Isolation Pilot Plant	Fewell (1999a,b)
<u>Separations Alternative</u>					
Full Separations Option					
Vitrified high-level waste (SRS canisters)	Glass	470 m ³	780	Onsite storage – NGR	Fluor Daniel (1997)
Class A low-activity waste (cylinders)	Grout	27,000 m ³	25,100	INEEL or offsite disposal	Fewell (1999b)
Planning Basis Option					
Vitrified high-level waste (SRS canisters)	Glass	470 m ³	780	Onsite storage – NGR	Fluor Daniel (1997)
Class A low-activity waste (cylinders)	Grout	30,000 m ³	27,900	Offsite disposal	Fewell (1999b)
Transuranic Waste (remote-handled Waste Isolation Pilot Plant containers)	Dry solids	110 m ³	280	Waste Isolation Pilot Plant	Fewell (1999a,b)
Transuranic Separations Option					
Transuranic solids (remote-handled Waste Isolation Pilot Plant containers)	Al ₂ O ₃ , ZrO ₂ , phosphates, sulfates	220 m ³	560	Waste Isolation Pilot Plant	Kinnaman (1999)
Class C low-activity waste (cylinders)	cesium, strontium grout	22,700 m ³	21,100	INEEL or offsite disposal	Russell et al. (1998)
<u>Non-Separations Alternative</u>					
Hot Isostatic Pressed Waste Option					
Glass ceramic high-level waste (SRS canister)	SiO ₂ , TiO ₂ , calcine (70 percent)	3,400 m ³	5,700	Onsite storage – NGR	Lee (1999a) Fewell (1999b)
Transuranic Waste (remote-handled Waste Isolation Pilot Plant containers)	Dry solids	110 m ³	280	Waste Isolation Pilot Plant	Fewell (1999a,b)

Table C.7-6. (continued).

Alternative/Waste Form	Composition	Quantity	No. of Containers	Disposition	Source
Direct Cement Waste Option					
Hydroceramic high-level waste (SRS canisters)	Clay, Slag, Caustic soda, Calcine	13,000 m ³	18,000	Onsite storage – NGR	Dafoe and Losinski (1998); Prendergast (1999); Lee (1999b)
Transuranic Waste (remote-handled Waste Isolation Pilot Plant containers)	Dry solids	110 m ³	280	Waste Isolation Pilot Plant	Fewell (1999a,b)
Early Vitrification Option					
Vitrified SBW transuranic (remote-handled Waste Isolation Pilot Plant containers)	Glass	360 m ³	900	Waste Isolation Pilot Plant	Kimmitt (1999) Lopez (1998)
Vitrified calcine high-level waste (SRS canisters)	Glass	8,500 m ³	11,700	Onsite storage – NGR	Kimmitt (1999)
<u>Minimum INEEL Processing Alternative</u>					
Transuranic Grout (contact-handled Waste Isolation Pilot Plant containers)	Grout	7,500 m ³	37,500	Waste Isolation Pilot Plant	Dafoe (1999) Fewell (1999b)
Vitrified high-level waste (Hanford canisters)	Glass	730 m ³	625	INEEL onsite storage – NGR	Jacobs (1998)
Vitrified low-activity waste (Hanford low-activity waste boxes)	Glass	14,400 m ³	5,550	INEEL or offsite disposal	Jacobs (1998)
m ³ = cubic meters NGR = National Geologic Repository					
SRS = Savannah River Site					